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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,646	03/13/2001	Mark Grimse	1040659-991101	4015

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EXAMINER

HOLMES, MICHAEL B

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/805,646

Applicant(s)

GRIMSE ET AL.

Examiner

Michael B. Holmes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_



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**Examiner's Detailed Office Action**

1. This action is responsive to application **09/805,646**, filed **March 13, 2001**.
2. **Claims 1-10** have been examined.

**Information Disclosure Statement**

3. Applicant is respectfully remind of the ongoing Duty to disclose 37 C.F.R. 1.56 all pertinent information and material pertaining to the patentability of applicant's claimed invention, by continuing to submitting in a timely manner PTO-1449, Information Disclosure Statement (IDS) with the filing of applicant's of application or thereafter.

**Drawings**

4. The formal drawings have been reviewed by the United States Patent and Trademark Office of Draftperson's Patent Drawings Review.

## Specification

5. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is required in correcting any errors of which applicant may become aware in the specification. Appropriate correction is required.

## Claim Interpretation

6. Office personnel are to give claims their "**broadest reasonable interpretation**" in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See \*also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. . . . The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed. . . . An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process."). *see* MPEP § 2106. Accordingly, Kahn et al. "teaches a system and method for automatically guiding a user i.e., a human through a complex process including multiple process steps where each step may have multiple selectable options or require a user to take actions based on knowledge of detailed process rules or policies underlying the process."

### Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claims 1-10** are rejected under 35 U.S.C. 101 because applicant's invention as disclosed in claims 1-10 is directed to non-statutory subject matter an abstract idea. An idea in and of itself is not patentable e.g., a logical structure or a data structure. Moreover, the definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation function." Applicant's claims disclose a system and logical structure for representing steps of a process, that can be implemented in a number of ways without specifically employing a computer-readable medium. Accordingly, claims that merely manipulate abstract idea in general without limitation to a practical application carried out of a computer-readable medium, is non-statutory.

### Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claims 1-5 & 8-10** are rejected under 35 U.S.C. 102(b) as being anticipated by

**Kahn et al. (USPN 4,866,635), Filed: Oct. 19, 1987; Date of Patent: Sep. 12, 1989.**

**Regarding claim 1:**

*Kahn et al.* teaches

- a system for guiding a user through a complex process having a plurality of steps at each of which the user is required to make a decision, the system comprising: a logical structure for representing the steps of the process, each node of the structure representing a step in the process and one or more of the steps presenting alternatives to the user requiring the user to make a decision [(FIG. 3, col. 7, line 59-68 “Knowledge base maintenance is facilitated by clustering information around failure-modes 38 as seen in FIG. 3. Since the failure-mode is the key concept in most troubleshooting tasks, such aggregates provide an easily understood and readily accessible structure. Inspection of a failure-mode provides direct access to associated tests 40, repairs 42 and documentation 44, as well as to the forward causal links “due to” 30 and backward causal links “always leads to” 46 to other failure-modes in the network. “)]; one or more guidance pages attached to each node of the structure, the guidance pages providing the user of the system with guidance about how to make decision at the current step of the process [(col. 16, line 53 to col. 17, line 14 “A new type of schema called a decision-node has been introduced to handle cases within the diagnosis where conditional branching is desirable, particularly in the area of certain sequences of test. ...Decision-nodes appearing in a DUE-TO slot can be thought of as entry points into a sequence of other decision-nodes, which eventually will lead to the confirmation of a failure-mode which is the cause of the original failure-node.”)];

means for gathering the user responses to each step in the process to generate process information [(col. 43, line 45-50 "*The new-info feature can be used by the technician performing the diagnosis to volunteer new information ... Specifically, there are four options available within new-info ...*")]; and means for recommending an action to the user based on the process information. [(col. 13, line 06-10 "**HAS-REPAIRS**--*a list of repair-procedure schemata. The list is ordered and the problem solver will recommend the first repair in the list (unless it has already been performed and for some reason did not fix the problem.*")]

**Regarding claim 2:**

*Kahn et al.* teaches

each guidance page further comprises one or more page fragments which include fragment data and a fragment precondition, a page fragment being shown to the user of the system only if the fragment precondition is met. [(col. 15, line 28-37 "*This Schema indicates that the concern called **CC-machine-wont-start** has five question that can be asked, called **Q-1** through **Q-5**. The questions are asked in the order shown, but some of them have preconditions that must be satisfied before they can be asked. **Q-1** and **Q-2** have no preconditions, and are always asked. **Q-3** is only asked if the answer to **Q-1** is yes. **Q-4** is only asked if the answer to **Q-1** is yes and the answer to **Q-2** is no. **Q-5** is only asked if the answer to **Q-1** is no, or if the answer to **Q-2** is yes.*")]

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**Regarding claim 3:**

*Kahn et al.* teaches

the structure comprises a decision tree having one or more nodes which represent each step of the process. [(col. 42, line 49-54 *"The plan server gives the problem solver the ability to incrementally generate decision trees from the current state of the diagnosis. Plan shows the next series of tests the technician must perform, based on all possible results for those tests. It can display the results either in tabular or in graphical flow-chart form."*)]

**Regarding claim 4:**

*Kahn et al.* teaches

the structure comprises a decision matrix. [(col. 26 line 39-67 *"A rule can modify a slot value in three ways; it can replace the slot value with an entirely new value, it can reorder the existing values in a new sequence, or it can remove certain values from a slot. Not all kinds of rules can be used to modify all slots, however. Some of them would make no sense, such as removing elements from a single-element slot such as OCCURS, or reordering a non-ordered list such as ALWAYS-LEADS-TO. The following chart lists all the slots that can be modified by rules, and shows whether you can replace, reorder, or remove values from each kind of slot."*)]

**Regarding claim 5:**

*Kahn et al.* teaches

the process comprises a human resources process. [(col. 10, line 01-10 *"TEST additionally allows users to volunteer unsolicited information, as well as to dynamically change the course of*



*the diagnosis. Since troubleshooting systems tend to be highly interactive, it is desirable to take advantage of user input, particularly the human ability to notice diagnostically critical information, even though the system may not be asking for it. Moreover, the hunches of experienced technicians can often prove valuable in reducing diagnostic search time. By utilizing these hunches, TEST not only makes use of its human partners but is perceived as being more user friendly and less frustrating to use.”)]*

**Regarding claim 8:**

*Kahn et al.* teaches

- A method for guiding a user through a complex process having a plurality of steps at each of which the user is required to make a decision, the method comprising: guiding the user through the process using a logical structure for representing the steps of the process, each node of the structure representing a step in the process and one or more of the steps presenting alternatives to the user requiring the user to make a decision [(col. 24, line 29-41 “**STEPS**--a list of one or more test schema names. The order of the names is important, it is used by the problem solver to determine the order that the user is instructed to perform the various tests within the causal shadow. ...A repair-procedure is a schema which represents a method for performing a repair on the system. It is referred to in a failure-mode, and is recommended to the user if that failure-mode is confirmed.”)]; providing guidance about a decision in the process using a guidance page attached to a node of the structure; gathering the user responses to each step in the process to

generate process information [(col. 16, line 53 to col. 17, line 14 “*A new type of schema called a decision-node has been introduced to handle cases within the diagnosis where conditional branching is desirable, particularly in the area of certain sequences of test. ...Decision-nodes appearing in a DUE-TO slot can be thought of as entry points into a sequence of other decision-nodes, which eventually will lead to the confirmation of a failure-mode which is the cause of the original failure-node.*”)]; and recommending an action to the user based on the process information. [(col. 13, line 06-10 “**HAS-REPAIRS**--*a list of repair-procedure schemata. The list is ordered and the problem solver will recommend the first repair in the list (unless it has already been performed and for some reason did not fix the problem.*”)]

**Regarding claim 9:**

*Kahn et al.* teaches

further comprising generating the guidance page from one or more page fragments which include fragment data and a fragment precondition, a page fragment being shown to the user of the system only if the fragment precondition is met. [(col. 15, line 28-37 “*This Schema indicates that the concern called **CC-machine-wont-start** has five question that can be asked, called **Q-1** through **Q-5**. The questions are asked in the order shown, but some of them have preconditions that must be satisfied before they can be asked. **Q-1** and **Q-2** have no preconditions, and are always asked. **Q-3** is only asked if the answer to **Q-1** is yes. **Q-4** is only asked if the answer to*

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**Q-1 is yes and the answer to Q-2 is no. Q-5 is only asked if the answer to Q-1 is no, or if the answer to Q-2 is yes.”]**

**Regarding claim 10:**

*Kahn et al.* teaches

- an apparatus for guiding a user through a process having a plurality of steps, the apparatus comprising: a logical structure for representing the steps of the process, each node of the structure representing a step in the process and one or more of the steps presenting alternatives to the user requiring the user to make a decision [(FIG. 3, col. 7, line 59-68 “*Knowledge base maintenance is facilitated by clustering information a-round failure-modes 38 as seen in FIG. 3. Since the failure-mode is the key concept in most troubleshooting tasks, such aggregates provide an easily understood and readily accessible structure. Inspection of a failure-mode provides direct access to associated tests 40, repairs 42 and documentation 44, as well as to the forward causal links "due to" 30 and backward causal links "always leads to" 46 to other failure-modes in the network.*”)]; a database containing one or more page fragments having an associated fragment precondition, the page fragment being placed within a guidance page when the precondition is met [(col. 8, line 48-62 “ *The domain-specific knowledge base 24 serves as input to the problem solver 20. Given the failure-mode hierarchy and other auxiliary information, the problem solver searches for a diagnostic conclusion, interactively prompting a technician, or sampling sen-*

sors or databases, as necessary to obtain evidence to proceed with the diagnostic session. In general terms, the problem solver 20 pursues a depth first recursive strategy starting with an observed or determined failure. It seeks the cause of an occurring failure-mode by sequentially considering, from left to right, candidate causes (other failure-modes) referenced in the due-to slot 30 of the failure-mode under consideration. Candidate causes can have three states: confirmed, disconfirmed, and unknown.”)]; and means for generating a guidance page for a process step based on the page fragments. [(col. 8, line 01-06 “The knowledge base is organized as a network of failure-modes having primary links 30, 46 to other causally related failure-modes and secondary links “has tests” 48, “has documentation” 50, “has repairs” 52, etc. to other knowledge-base objects such as tests 46, documentation 44, and repairs 42, respectively.”)]

### Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. **Claim 6 and 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over

**Kahn et al. (USPN 4,866,635), Filed: Oct. 19, 1987; Date of Patent: Sep. 12, 1989**

in view of “**Official Notice.**”

13. The Kahn reference has been discussed above and does not explicitly teach the limitation of **claims 6 & 7**. However, “**Official Notice**” is taken regarding **claim 6 & 7**, that the limitations (an attendance management process & a compensation planning process) is old and well known. The motivation embodied in the “**Official Notice**” is obvious in a modern computing environment. Time and attendance juxtaposed compensation systems have been realized. Companies have realized the their employees are their most valuable asset. Moreover, companies have realized the importance of a consistent workforce, along with the need of keeping track of the whereabouts of its employees. Even in light of the internet, work-at-home-programs, and flex programs, software has been developed (internally as well as externally) for the sole purpose of time and attendance. Furthermore, because of the scarcity and the time and effort it takes to train a high skilled worker. Companies have instituted compensation or rewards programs in an effort to retain their value staff. One such rewards or compensation program instituted by some companies and government institution is one day work-at-home-program. However, in order to qualify, a proper restriction could be perfect time and attendance within a specified timeframe.

## Conclusion

14. The prior art made of record (listed of form **PTO-892**) and not relied upon is considered pertinent to applicant’s disclosure. Applicant or applicant’s representative is respectfully reminded that in process of patent prosecution amending of claims in response to a rejection of claims set forth by the Examiner per Title 35 U.S.C. The patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and any objections made.

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Moreover, applicant or applicant's representative must clearly show how the amendments avoid or overcome such references and objections. *See 37 CFR § 1.111(c).*

### Correspondence Information

15. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Michael B. Holmes** who may be reached via telephone at **(703) 308-6280**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding After Final issues, please send it to **(703) 746-7238**. If you need to send an Official facsimile transmission, please send it to **(703) 746-7239**. If you would like to send a Non-Official (draft) facsimile transmission the fax is **(703) 746-7240**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **Anil Khatri**, may be reached at **(703) 305-0282**.

Any response to this office action should be mailed too:

**Director of Patents and Trademarks Washington, D.C. 20231**. Hand-delivered responses should be delivered to the Receptionist, located on the fourth floor of **Crystal Park II, 2121 Crystal Drive Arlington, Virginia**.

***Michael B. Holmes***

Patent Examiner

Artificial Intelligence

Art Unit 2121

United States Department of Commerce

Patent & Trademark Office

  
**ANIL KHATRI**  
**PRIMARY EXAMINER**